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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/625,788

07/23/2003

Rajashankar Rajakumar

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10/03/2006

EXAMINER

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ART UNIT

PAPER NUMBER

2627

DATE MAILED: 10/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/625,788

Applicant(s)

RAJAKUMAR, RAJASHANKAR

Examiner

Brian E. Miller

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 and 21 is/are pending in the application.
- 4a) Of the above claim(s) 5, 12-14, 18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-11, 15, 16 and 19 is/are rejected.
- 7) ☒ Claim(s) 17 and 21 is/are objected to.
- 8) ☒ Claim(s) 1-20 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2627

Claims 1-19, 21 are now pending with claims 5, 12-14, 18 withdrawn from consideration due to a previously set forth restriction requirement.

Drawings

1. The replacement drawing sheet was received on 7/17/06. This drawing is acceptable.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 2-6, 9-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. (a) In claim 2, the language “the first recessed surface” lacks proper antecedent basis.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3, 6-8, 15-16, 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Rao et al (US 2002/0075599). Rao et al discloses a bearing surface, as shown mainly in FIGs. 3-4 including: (as per claims 1 & 15) a leading edge 38; a trailing edge 40; a bearing surface 46; a

Art Unit: 2627

center split feature disposed proximate a centroid of the slider (top view shown in FIG. 4 shows this center split feature extending into the centroid), the center split feature comprising: a first center split surface 66 that is at the same surface as the bearing surface surface 46 (see para [0027]); a second center split surface 78 disposed forward of the first center split surface that is at the same surface as the first recessed surface (see para [0028] & [0029]); and a third center split surface, e.g., proximate area 94, disposed forward of the second center split surface 78 and recessed from the second center split surface; wherein the first 66, second 78 and third 94 center split surfaces form a step like pattern, and are disposed such that fluid flowing over the bearing surface flows over the third, second and first center split surfaces, respectively; (as per claims 2 & 16) the bearing surface further including: a cavity dam 214 disposed proximate to the leading edge 38, the cavity dam having a disc facing surface that is raised above the first recessed surface 46; and a subambient pressurization cavity 240 disposed between the cavity dam and the center split feature; (as per claim 3) the bearing surface further including: a first side rail 52 disposed along a first side of the slider body; a second side rail 54 disposed along a second side of the slider body (as per claim 6) wherein a portion of the subambient pressurization cavity includes the third center split surface (inside furrow 94); (as per claim 7) wherein the first recessed surface is recessed between about 0.15 microns and about 0.3 microns (see para 0025)]; (as per claim 8) wherein the second recessed surface is recessed between about 2 microns and about 5 microns (see para [0026]).

Claims 19 and 20, which are broader, are also encompassed by the description of Rao et al, above.

6. Claim 19 is rejected under 35 U.S.C. 102(b) as being anticipated by Jang et al (2002/0008940). Jang et al discloses a bearing surface, as shown in at least FIG. 4, including: a center split feature 130, 131 disposed proximate a centroid of the bearing surface, the center split feature comprising at least three center split surfaces 130, 131, 180, wherein the at least three center split surfaces form a step like pattern, and are disposed such that fluid flowing over the bearing surface flows over each of the at least three center split surfaces; (as per claim 20) wherein a cavity dam, e.g., stepped feature forward of 120, is disposed forward of the center split feature relative to the fluid flow.

Allowable Subject Matter

7. Claims 4, 9-11 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

8. Claims 17, 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

9. Applicant's arguments filed 7/17/06 have been fully considered but they are not persuasive.

Art Unit: 2627

A...Applicant asserts on page 9 (of the Remarks) 2nd full paragraph that “At best, the Rao reference teaches a feature that has two levels” and “The other levels of the Rao reference that the Examiner cited are located proximate the trailing edge of the slider.”

These arguments are considered not persuasive. As explained above, figure 4 of Rao includes at least 3 stepped levels as required by the claims. The center split level feature begins proximate the centroid and extends towards the trailing end of the slider, but is still considered to meet the claim language.

B...With respect to the Jang reference, applicant submits Jang “does not disclose a cavity dam disposed forward of the center split feature relative to the fluid flow. The Jang reference only discloses two front rails disposed at or near the leading edge. These front rails are not a cavity dam and no cavity is formed by them.”

The Examiner respectfully traverses. Applicant does not particularly recite any corresponding structure associated with this “cavity dam” and thus it has been interpreted to simply include a wall of the front pads. The specific location is not recited either. If applicant would recite such features, the reference to Jang would be overcome. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian E. Miller whose telephone number is (571) 272-7578. The examiner can normally be reached on M-TH 6:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit: 2627

If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read "B. E. Miller", with a stylized flourish at the end.

Brian E. Miller
Primary Examiner
Art Unit 2627

BEM
September 29, 2006